Project Design Phase
Solution Architecture

Date	10 feb 2026
Team ID	**LTVIP2026TMIDS34624**
Project Name	**Strategic Product Placement Analysis**
Maximum Marks	4 Marks

Solution Architecture:

◇ **Goals of the Architecture**

1. ☑ **Find the best tech solution** to visualize how product position, price, promotions, and customer demographics affect sales volume.

2. ☑ **Define the system's structure and behavior** using Tableau Public for dashboards and Python/Tableau for preprocessing.

3. ☑ **Outline features, components, and development phases** clearly for visualization and interaction.

4. ☑ **Provide technical specifications** for implementation and scaling.

🖎 **Architecture Components**

Layer	Component Description
Data Layer	Source: Product Positioning.csv file with fields like Sales Volume, Foot Traffic, Demographics, Promotion, etc.
Processing Layer	Data cleaning, formatting, and calculated fields in Tableau or via Python (optional).
Application Layer	Tableau logic engine for filters, calculations, and chart rendering.
Presentation Layer	Final dashboard built in Tableau with interactive visuals: bar, funnel, donut, waterfall, etc.
Users	Retail managers, marketing executives, analysts – accessing via Tableau Public or PDF reports.

⬚ Development Phases

Phase	Description
Phase 1 – Data Prep	Clean CSV data, convert data types, handle missing values
Phase 2 – Basic Visuals	Create bar, donut, and filterable dashboards
Phase 3 – Advanced Visuals	Funnel, area, waterfall, and highlight tables with calculated fields
Phase 4 – Dashboard + Story	Combine visuals, enable filters, and build an interactive story
Phase 5 – Final Report	Export dashboard and insights for stakeholders